

ABSTRACT

A method and apparatus are disclosed for listening to ambient sounds, engage in face-to-face communication, listen to and transmit voice communications, while also protecting the auditory system from hazardous sound pressure levels. Increased gain permits the user to maximize his sound detection ability during "reconnaissance and sentry" activities, thereby increasing the user's ability to detect and localize low level sounds such as, for example, enemy movement or activity. The throughput of the system is linear creating high fidelity of sound until the output level for a particular setting of the final gain reaches the limits established by the power supply. At that point, the output reaches a hard limit. This supply voltage also limits the output to the ear for any instantaneous increase in sound pressure levels. The invention includes barriers to attenuate ambient sounds from entering the ear canal and means for providing sound to the occluded portion of the ear canal. Therefore, hazardous impact noise (e.g., weapons blast, small arms fire, etc.) does not pass through the invention while ambient sounds and conversation are received at a level suitable for the auditory system.